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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,527

03/09/2004

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1944

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05/28/2010

EXAMINER

LUND, JEFFRIE ROBERT

ART UNIT

PAPER NUMBER

1716

NOTIFICATION DATE

DELIVERY MODE

05/28/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/796,527	<b>Applicant(s)</b> MORI ET AL.	
	<b>Examiner</b> Jeffrie R. Lund	<b>Art Unit</b> 1716	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11, 14-16, 18-21, 25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11, 14-16, 18-21, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/09/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/153,453.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 11, 14-16, 18-21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonemitsu et al, US Patent 6,143,083, in view of Edwards et al, US Patent 5,259,881, Martin, 4,492,180, and Yamazaki et al, US Patent Application Publication 2001/0006827.

Yonemitsu et al teaches an apparatus that includes: a loadlock 300 for loading substrates into the apparatus; a first film formation unit 701 including a plurality of vacuum chambers 70 for sequentially forming of a plurality of layers around a vacuum transfer chamber 55; a second film formation unit 701' including a plurality of vacuum chambers 70' for sequentially forming of a plurality of layers around a second vacuum transfer chamber; and an intermediate transfer chamber 90 that connects first and second film formation unit. The vacuum chamber includes a holder 75 for holding the attachment fixture. (Figure 3 and 15)

Yonemitsu et al differs from the present invention in that Yonemitsu et al does not teach: a third film formation unit; a first, second, or third alignment mechanism for aligning a mask to the substrate and detachably attaching the

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mask to the substrate; the second alignment mechanism connects the first and second film formation units, and the third alignment mechanism connects the first and second film formation units; the alignment mechanism includes an attachment fixture and a separating mechanism for attaching and separating the mask from the substrate holder; a second electrode formation unit; a magnetic attachment fixture for attaching the mask to the substrate; or that the three chambers are for sequentially forming a plurality of organic material layers on the substrate.

Edwards et al teaches two processing apparatus 12, 14 connected by an alignment chamber 16 (Figure 1).

Martin teaches an alignment means that includes an alignment mechanism 20 for aligning a mask 30, having openings corresponding 102, 104 to the predetermined pattern, to the substrate 64 and for detachably attaching the mask and the substrate. (Figure 3)

Yamazaki et al teaches a magnetic attachment fixture 207, 210 that sandwiches the substrate 203 and mask 208.

The motivation for adding a third film forming unit to the apparatus of Yonemitsu et al is to deposit a third layer.

The motivation for connecting the first, second and third film formation units of Yonemitsu et al with alignment chambers is to enable the substrate to be aligned between each film formation units as taught by Edwards et al.

The motivation for adding an alignment mechanism for aligning a mask to the substrate and detachably attaching the mask and the substrate to the

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apparatus of Yonemitsu et al is to enable the apparatus of Yonemitsu et al to adjust the position of the mask and deposit a layer in the desired location as taught by Martin.

The motivation for replacing the attachment fixture of Martin with the magnetic attachment fixture of Yamazaki et al is to provide an alternate attachment means. Furthermore, it has been held that the simple substitution of one known element for another to obtain predictable results is obvious (see *KSR International Co. v. Teleflex Inc.*).

The motivation for using the apparatus of Yonemitsu et al to sequentially form a plurality of organic material layers on the substrate is to form an organic electroluminescence display on a substrate. The apparatus of Yonemitsu et al is capable of depositing organic material. The limitation “for sequentially forming the plurality of organic material layers on the substrate” is an intended use of the substrate and the combination of Yonemitsu et al, Edwards et al, Martin, and Yamazaki et al is capable of sequentially forming a plurality of organic material layers on the substrate. Furthermore, it has been held that: claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danley*, 120 USPQ 528, 531, (CCPQ 1959); “Apparatus claims cover what a device is, not what a device does” (Emphasis in original) *Hewlett-Packard Co. V. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990); and a claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus “if the prior art apparatus teaches all the

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structural limitations of the claim *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Also see MPEP 2114.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to: add a third film forming unit to the apparatus of Yonemitsu et al; connect the first, second and third film formation units of Yonemitsu et al with alignment chambers as taught by Edwards et al; and add an alignment mechanism for aligning a mask to the substrate and detachably attaching the mask and the substrate to the apparatus of Yonemitsu et al as taught by Martin; replace the attachment means of Martin with the magnetic attachment means of Yamazaki et al; and to perform a sequential selective deposition of a plurality of organic material layers on the substrate.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 11, 14-16, 18-21, 25, and 26 have been considered but are moot in view of the new ground of rejection. In regard to the limitation "the substrate attached to the mask", the rejection has been changed to more clearly teach this limitation.

4. Applicant's arguments filed March 12, 2010 have been fully considered but they are not persuasive.

In regard to the arguments directed to the limitation "for sequentially forming the plurality of organic material layers on the substrate at a single color position", the Examiner disagrees. This limitation is an intended use of the apparatus. The apparatus of Yonemitsu et al, Edwards et al, Martin, and Yamazaki et al is capable of sequentially forming the plurality of organic material

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layers on the substrate at a single color position. The Applicant has not provided any evidence or even argued that the apparatus of Yonemitsu et al, Edwards et al, Martin, and Yamazaki et al is not capable of performing the claimed function. The only argument that the applicant has provided is that Yonemitsu et al, Edwards et al, Martin, and Yamazaki et al do not teach doing so. As noted above, it has been held that: claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danley*, 120 USPQ 528, 531, (CCPQ 1959); "Apparatus claims cover what a device is, not what a device does" (Emphasis in original) *Hewlett-Packard Co. V. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990); and a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus "if the prior art apparatus teaches all the structural limitations of the claim *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Also see MPEP 2114. The combination of Yonemitsu et al, Edwards et al, Martin, and Yamazaki et al teaches all of the structural limitations.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized

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that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The arguments against the combination are directed to how the mask is used and not if it is obvious or even possible to use a mask in the apparatus of Yonemitsu et al. The Examiner notes that it is well known in the art to use masks in deposition chambers to control the deposition of material on the substrate. One of ordinary skill in the art at the time the invention was made would have not problem in using a mask in the apparatus of Yonemitsu et al. Thus the addition of the mask of Edwards et al, Martin, and Yamazaki et al is not hindsight reasoning, but a well known structure for controlling location material deposited by the process chamber. The specific function or material deposited is an intended use of the apparatus and the combination is capable of performing the claimed process as discussed above.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-1437. The examiner can normally be reached on Monday-Friday (7:00 am - 3:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435.



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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrie R. Lund/  
Primary Examiner  
Art Unit 1792

JRL  
12/5/09